

Remarks

Claims 1, 4-15 and 17-18 remain pending in the present application, to which claims 29 and 30 have been added. It is respectfully submitted that the pending claims define allowable subject matter.

Initially the examiner is thanked for indicating claims 4-12, 14-15 and 17-18 to be allowable. For reasons explained below, it is believed that pending independent claims 1 and 13 are also patently distinct over the prior art.

Claims 1 and 13 have been rejected under 35 USC § 102(a) as being anticipated by or, in the alternative, under 35 USC § 103(a) as being obvious over Neuman (USP 6,226,862). Applicants respectfully traverse this rejection for reasons set forth hereafter.

It is respectfully submitted that Neuman fails to teach or suggest the methods of claims 1 and 13 since Neuman does not teach or suggest the mounting or induction heating claimed operations. Claim 1 defines a method of forming an electrical contact comprising mounting a plurality of electrical context on a substrate and induction heating the electrical contacts for a predetermined period of time to heat different first and second portions of the electrical contacts by different first and second amounts. Claim 13 recites a method for fabricating a contact component comprising mounting a plurality of contacts on a substrate and induction heating the contacts by different first and second amounts without induction heating the substrate.

Neuman does not mount electrical contacts on a substrate, nor perform the claimed induction heating. Neuman describes a method of manufacturing a printing circuit board containing an array of conductive circuit paths or traces that are made on a flexible substrate. The paths or traces are formed by laminating a film of a copper foil onto the circuit board and masking or etching the film to result in an array of circuit traces or paths terminating in conductive pads on the edge of film's substrate (column 1, lines 35-41). The laminating,

masking and etching process of Neuman to provide circuits pads or traces on the circuit board do not anticipate or render obvious the claimed mounting operations. Claims 1 and 13 clearly define mounting a plurality of electrical contacts on a substrate. Neuman's laminating, masking and etching process significantly differs from the claimed mounting operation. Neuman's process results in conductive pads being located on the circuit board, while the claimed mounting operation positions contacts on a substrate.

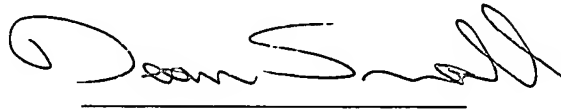
Further, Neuman's induction heating process differs from the claimed operation. Claim 1 clearly recites the induction heating operation to heat different first and second portions of the electrical contacts by different first and second amounts, while claim 13 defines the induction heating operation to heat the contacts by different first and second amounts. In contrast, Neuman's circuit pads and traces are plainer and lay along the surface of the circuit board. The entire surface of the circuit board in the area containing the pads or traces is passed under the coil assembly of the heater for 20. Thus, it necessarily follows that the entire conductive pad or trace provided on Neuman's circuit board would be evenly heated. Nowhere does Neuman teach or suggest that an individual circuit pad or trace would be heated by first and second different amounts.

In fact, it is submitted that Neuman teaches away from heating an individual circuit pad non-uniformly (e.g., by different first and second amounts). Neuman's induction process is intended to solder two different circuit boards together. Neuman does so by precoating each conductive pad with solder and then overlapping corresponding pads on the two boards 102 and 104. During the solder heating step, the joining area is subject to a pressure to facilitate the bonding operation. It is submitted that the person of ordinary skill would be motivated to uniformly heat the conductive pad to ensure that the solder uniformly melts and provides a uniform bond across the entire the conductive pad. Therefore, it submitted that Neuman in fact teaches away from the claimed induction heating operation due in particular to Neuman's entirely different and diverse reason for exposing the circuit board to induction heating.

Further, it is submitted that Neuman fails to teach or suggest the newly added dependent claims 29 and 30. Claims 29 and 30 depend from claims 1 and 13 respectively, and further define the mounting step to include aligning each of the contacts along a contact longitudinal axis that extends away from the plane of the substrate. The pads of Neuman lie along and extend parallel to the plane of the substrate. Thus, claims 29 and 30 are neither anticipating nor rendered obvious by Neuman.

In here the forgoing comment is respectfully submitted that the pending claims define allowable subject matter. Should anything remain in order to place the present application in condition for allowance, the examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Dean Small", written over a horizontal line.

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